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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,231	06/19/2001	Richard E. Auerbach	1039-68477	5169

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INDIANAPOLIS OFFICE 27879
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EXAMINER

TUGBANG, ANTHONY D

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/884,231

Applicant(s)

AUERBACH ET AL.

Examiner

A. Dexter Tugbang

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 28-43 is/are pending in the application.
- 4a) Of the above claim(s) 2-19 and 34-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 28-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species D, directed to Claims 28-33 in the reply filed on 11/1/04 is acknowledged. The traversal is on the ground(s) that Claim 1 is generic and therefore, all of Claims 2-19 and 28-43 should be examined. This is not found persuasive because Claims 2, 18 and 34 are not generic claims. First, the examiner agrees with the applicant(s) that amended Claim 1 is now generic and will be examined on the merits. The applicant(s) even admit that Claims 2 and 34 are each subspecies of Claim 1. However, Claim 2 is directed to Species B and Claim 34 is directed to Species E, as well as Claim 18 being directed Species C, as all of this was specified in the previous Office Action (Restriction, dated 7/27/04). Since applicant(s) have elected Species D, then Claims 2-19 and 34-37 are now claims directed to an invention non-elected.

Furthermore, it is noted that newly added Claims 38-43 are directed to different Species as follows:

Claim 38 is drawn to Species A;

Claim 39 is drawn to Species B;

Claims 40-43 are drawn to Species E.

Therefore, Claims 38-43 are directed to an invention non-elected as well.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 2-19 and 34-43 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Species, there being no allowable generic or

Art Unit: 3729

linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/1/04.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by European Patent EP 0 369 434, referred to hereinafter as EP'434.

EP'434 discloses a method of making a woven spider comprising: selecting a thread (anyone of fibers 11 in Fig. 7A) of a cloth; helically wrapping multiple electrical conductors 12a, 12b around the thread (see Fig. 7A); and weaving the wrapped thread at a selected location in the cloth to serve as part of the weave of the cloth (see Fig. 7C).

5. Claims 1, 28, 30 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent Publication JP 5-85196, referred to hereinafter as JP'196.

Regarding Claim(s) 1 and 28, JP'196 discloses a method of making a woven spider comprising: selecting a thread (read as on the flat conductors 29a) of a cloth SH from which the spider is to be woven; helically wrapping an electrical conductor (another one of the flat conductors 29a) around the selected thread; and weaving the wrapped thread with the electrical conductor (woven wrapped threads 29a) at a selected location in the cloth to serve as part of the cloth and to form a single shed of the woven cloth (see Fig. 7 and page 3 of English Translation). It is noted that it is inherent that the electrical conductor is wrapped around the thread based

Art Unit: 3729

upon the criss-cross arrangement of the electrical conductor and thread (two elements of 29a shown in Fig. 7).

Regarding Claim(s) 30, in Figure 7 of JP'196, the portion outlined as 29a is read as the "integral part" of the woven cloth which is considered to be only the selected thread that is wrapped with the electrical conductor.

Regarding Claim(s) 31, JP'196 shows that both the cloth and the wrapped thread with the electrical conductors 29a are bent at a multitude of locations along the cloth (shown in Fig. 5) and anyone of the peaks at each of the bends can be read as the "flex locus".

Claim Rejections - 35 USC § 103

6. Claims 1, 28, 30, 31 and 32, alternatively, are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'196 in view of Sakamoto 5,091,958.

Regarding Claim(s) 1 and 28, if applicant(s) do not believe that JP'196 inherently teaches that the electrical conductor (one 29a) is wrapped around the selected thread (other 29a), then Sakamoto shows that it is well known to provide a thread (one flat conductor) and wrap the thread around an electrical conductor (another flat electrical conductor) by weaving, prior to weaving the wrapped thread within the woven cloth (see col. 3, lines 3-6).

Regarding Claim(s) 30 and 31, JP'196 meets these limitations for the reasons state above.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of JP'196 by wrapping the electrical conductor around the selected thread, as taught by Sakamoto, to provide an art recognized equivalent woven cloth used as a spider.

Art Unit: 3729

Regarding Claim 32, the examiner takes Official Notice that shaping woven cloths by trimming to form the outer circumference and a central opening is notoriously well known in the art of manufacturing cloths. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified either of the cloths of JP'196 or Sakamoto et al by trimming the cloths for the advantages of achieving a particular shape and opening of the cloth. As evidence of obviousness, see the previously cited references to either Thomas (U. S. Patent 5,408,056, Figure 2) or Roberts (U. S. Patent 3,350,513, Fig. 6, step G).

7. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'196 in view of Sakamoto as applied to claim 28 above, and further in view of EP'434.

JP'196, as modified by Sakamoto, discloses the claimed manufacturing method as relied upon above. The modified JP'196 method does not teach that the electrical conductor extends beyond an edge of the woven cloth when the woven cloth is molded and trimmed to a desired shape.

EP'434 shows a woven cloth being molded and trimmed to the dimensions of D and W with the wrapped conductor extending beyond and edge of the woven cloth (see Fig. 7C).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of JP'196 by having the electrical conductor extend beyond an edge of the woven cloth during the time that the woven cloth is molded and trimmed, as taught by EP'434, to form somewhat similar shapes of art recognized equivalent woven cloths that are to be subsequently attached to a coil former.

8. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'196 in view of Sakamoto as applied to claim 28 above, and further in view of Kimura et al 3,841,952.

JP'196, as modified by Sakamoto, discloses the claimed manufacturing method as relied upon above, and further including electrically coupling the electrical conductor to a voice coil wire with a conductive adhesive (solder), applying an adhesive by spraying between the woven spider and a coil former before the conductive adhesive has cured, or hardened, to cover the conductive adhesive and join the woven spider to the coil former (see example on page 27, paragraph 53).

JP'196 does not say whether or not the adhesive that is applied between the woven spider and the coil former is non-conductive, such that it can be called a "non-conductive adhesive".

Kimura shows that non-conductive adhesives of a resin or thermoplastic composition that are sprayed provide excellent fusible bonding characteristics (see col. 4, lines 64+).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the adhesive applied between the woven spider and the coil former of JP'196, by utilizing anyone of the non-conductive adhesive compositions of Kimura, to provide excellent bonding characteristics between the woven spider and the coil former.

Response to Arguments

9. Applicant's arguments filed 2/6/04 have been fully considered but they are not persuasive.

In response to applicant's argument that EP'434 fails to teach that the wrapped thread is at a selected location in the cloth "to serve a part of the weave of the cloth in place of an unwrapped thread", it is noted that the limitation of "in place of an unwrapped thread" is not recited in the rejected claim(s) and therefore, the rejection of EP'434 as applied to Claim 1 is

Art Unit: 3729

maintained. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The applicant(s) arguments with respect to claim 28 have been considered but are moot in view of the new ground(s) of rejection.

Regarding Claim(s) 33, the applicant(s) urge that the solder of JP'196 cannot be read as a "conductive adhesive". The examiner most respectfully disagrees.

In the English Translation of JP'196, JP'196 discusses to the use of solder to connect the electrical conductor to a voice coil wire (see for example, paragraph 53). However, prior to this occurring, which would be prior to the solder being hardened or cured, JP'196 mentions the use of an adhesive to bond the woven spider to a coil former (see preceding paragraph 52). Albeit JP'196 does not mention that the adhesive is necessarily a non-conductive adhesive, this is solved by Kimura. So yes, the solder can be read as the "conductive adhesive" because the solder is considered to be a structural joint between the woven spider and the coil former at least to the extent that bonding is required between the electrical conductor and the voice coil wire.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

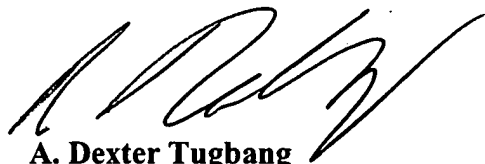
Art Unit: 3729

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 571-272-4570. The examiner can normally be reached on Monday - Friday 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



A. Dexter Tugbang
Primary Examiner
Art Unit 3729

January 10, 2005